

## ABSTRACT

5 A nonwoven web and method of preparing a novel nonwoven web  
of synthetic fiber are disclosed. An aqueous solution amide  
crosslinked synthetic precursor polymer is extruded under defined  
conditions through a plurality of die orifices to form a plural-  
10 ity of threadlines. The threadlines are attenuated with a  
defined primary gaseous source to form fiber under conditions of  
controlled macro scale turbulence and under conditions sufficient  
to permit the viscosity of each threadline, as it leaves a die  
orifice and for a distance of no more than about 8 cm, to in-  
crease incrementally with increasing distance from the die, while  
substantially maintaining uniformity of viscosity in the radial  
direction, at a rate sufficient to provide fiber having the  
desired attenuation and mean fiber diameter without significant  
15 fiber breakage. The attenuated threadlines are dried with a  
defined secondary gaseous source. The resulting fibers are  
deposited randomly on a moving foraminous surface to form a  
substantially uniform web. The moving foraminous surface is  
positioned about 10 to about 100 cm from the last gaseous source  
20 to contact the threadlines. The fibers have a mean fiber diame-  
ter in the range of about 0.1 to 30  $\mu\text{m}$  and are substantially free  
of shot. The attenuating and drying steps are carried out under  
conditions of controlled macro scale turbulence.